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A NEW VARIABLE STAR.

On the night of September 26, 1906, in the course of my survey for new double stars, I examined the star B. D. + 51°.3676 and found that it was fainter than 9.0 magnitude, though marked 7.8 in the B. D. As an examination of the published lists of variable stars failed to show this star, I called Mr. MADDRILL'S attention to it, and he has secured the observations given below, which prove beyond doubt that it is a variable, almost certainly of long period. The star is given in two star catalogues, Radcliffe I (epoch 1846.9) and Harvard A. G. (epoch 1873.6), and is there rated as 7.0 and 7.5 magnitude respectively.

The star's position is:—

$23^h\ 32^m\ 3^s.0;\ +51^\circ\ 27'.8$ (1855.0)
$23\ 34\ 11.55;\ +51\ 42\ 31''.3$ (1900.0)

R. G. AITKEN.

PHOTOMETER OBSERVATIONS OF B. D. + 51°.3676.

Photometric observations of the star have been secured on several nights, at the suggestion of Dr. AITKEN. On each night the suspected variable star was compared with two stars, *a* and *b,* with the Rumford [1] wedge photometer.

To eliminate or check changes in the artificial star or in the transparency of the sky, the order of observation was in each case: *v a v b v b v a v,* three or four settings of the wedge—with one or two more, if discordant—being made on each star in turn. The same combination of shade-glasses was used each night. The Moon happened to be above the horizon during each observation.

The details of observation will be given later in a Lick Observatory *Bulletin.* It seems sufficient for the present to state that the conditions were not good in general but that concordant results were obtained, as shown in the following self-explanatory tables:—

COMPARISON-STARS.

Star.	B. D.	Adopted Mag.	Authority.
a	+ 51°.3655	$7^m.02$	Harvard Photometric Durchmusterung.
b	+ 51 .3670	8 .88	Mean of my nine measures.

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[*] See these *Publications,* No. 103; or the more extended description in Lick Observatory *Bulletin* No. 83.

OBSERVATIONS.

Obs.	Date, 1906.	Julian Day, G. M. T.	Observed Magnitude.			Weight.
			a	*b*	*v*	
1	Sept. 28	2417482.75	$7^{m}.02$	$8^{m}.88$	$9^{m}.12$	1
2	Oct. 3	87.68	7 .09	8 .81	9 .11	⅓
3	" 5	89.81	7 .02	8 .88	9 .17	⅔
4	" 26	7510.69	7 .01	8 .89	9 .46	1
5	" 29	13.81	7 .00	8 .90	9 .37	1
6	" 31	15.67	7 .01	8 .89	9 .36	⅔
7	Nov. 5	20.78	6 .95	8 .95	9 .42	⅔
8	" 26	41.73	7 .08	8 .82	9 .63	⅔
9	" 27	42.73	7 .00	8 .90	9 .54	⅔

NOTE.—*v,* the variable, is in effect compared with the ***mean*** of *a* and *b;* the error of observation of the constant stars is equally distributed between them.

JAMES D. MADDRILL.

NOTE ON THE CHILE EARTHQUAKE OF AUGUST 16TH.

The cable messages received through the Department of State and directly from Dr. CURTIS, at Mt. Hamilton on August 23d and 24th, respectively, brought the comforting messages that the Mills Observatory was undamaged and Dr. CURTIS and family and Mr. PADDOCK were safe. Dr. CURTIS's letter of confirmation, written August 17th, reached me on October 20th; no mails were despatched until a fortnight after the catastrophe, and the letter was fifty-one days en route.

Dr. CURTIS states that "there were two hard shocks separated by an interval of a few seconds, the total duration of the severe motion being $4^{m}\ 50^{s}$. I started counting the seconds to time it; but changed to a sudden wish to see the lamps put out, and ended in a rush for the rain-drenched patio. The din was very great and all around could be heard the shrieks of the people. . . . A corner of our garden-wall was down, the rear (adobe) wall of our house was nearly all down, there was a five-inch crack at the ceiling where the side wall of the dining-room had nearly gone down, and there was fallen plaster and stucco everywhere. Nearly all of Santiago slept out of doors that night, in spite of the rain. . . . The after-effects of the 'quake have been remarkably persistent. The earth was literally in continuous movement for four hours